

## REMARKS

### I. Introduction

Applicants would like to thank Examiner Ferguson again for the indication of allowable subject matter recited by claims 5, 11 and 12. In response to the Office Action dated December 2, 2004, Applicants have amended the Abstract in the manner consistent with the Examiner's suggestion. Also, Applicants have amended claims 1-6, 8-12 and 16-17 so as to further correct several minor grammatical errors, and to further clarify the claimed invention. New claims 20-32 have been added. Support for these amendments can be found, for example, at page 6, lines 24-27, and page 7, lines 6-12 of the specification. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

### II. The Rejections Of Claims 1, 7-9 and 13 Under 35 U.S.C. § 102

Claims 1, 7-9 and 13 are rejected under 35 U.S.C. § 102(e) as being anticipated by US Pub No. 2002/0077067 to Lochner. Applicants respectfully traverse this rejection for at least the following reasons.

It appears that the pending rejections over the cited prior art are based on an overly broad interpretation of the claim language, whereby express limitations set forth in the claims have been ignored. Lochner is merely cumulative to Applicants' admitted prior art disclosed on pages 1-2 of Applicants' specification. For the reasons set forth below, it is respectfully submitted that Lochner is no more relevant to the present invention than Applicants' admitted prior art.

The Examiner reads the directional coupler 38 of Lochner as the claimed data input and output port. As is well known in the art, a directional coupler distributes or combines transmission signals (or power) at one port, and outputs the resulting signal at another port. As such, the directional coupler disclosed in Lochner is incapable of *converting* any signal, let alone being used in a conversion for converting a signal in one wireless communication data format and protocol to another wireless communication data format and protocol in the manner alleged by the Examiner.

Nonetheless, in an effort to assist the Examiner in understanding the foregoing distinction, claims 1, 8 and 9 have been amended to recite, in-part, “A wireless display system, wherein if a data input or a signal indicating a state change is detected at the data input and output port, the input and output data converting elements are capable of converting the data input or the signal indicating the state change to a predetermined wireless communication data format and protocol.”

Conventionally, as described at pages 1-2 of Applicants' specification, peripheral devices, such as barcode readers and global positioning systems, are built into personal computers so that the status of the peripheral devices can be displayed. Alternatively, the cable connecting the input and output port of the peripheral devices and that of the personal computer having a display is replaced by external devices so as to provide wireless connection therebetween. However, in both conventional configurations, Applicants have discovered that the sequence of user authentication and connection verification between the peripheral devices and the personal computer becomes complicated and burdensome, rendering the image display process inconvenient and user-unfriendly.

In view of the foregoing problem and in accordance with one exemplary embodiment of the present invention, the data communicating between the image display device 106 and that of the data processing device 101 are mutually transmitted and received through the memory 108 and the memory 103, respectively. Specifically, if input data or a signal indicating a state change, such as a signal wire change, is detected at the serial port 114, the memory 108 and the CPU 107 of the image display device 106 convert the input serial data and the signal indicating the state change to an appropriate wireless communication data format and protocol via the wireless unit 110 for wireless transmission. Then, the memory 103 and the input and output data conversion program loaded onto the CPU 107 of the data processing device 101 convert the received wireless communication data back to the original serial data or signal indicating the state change (see, e.g., page 6, lines 24-27, and page 7, lines 6-12 and page 8, lines 14-19 of the specification). As a result, the wireless communication between the data processing device 101 and the image display system 106 is enhanced, thereby improving the user authentication and connection verification process.

In direct contrast, the signal produced by the microcontroller 30 of Lochner is modulated by the alleged input and output data converting element 36. As such, the directional coupler 38 of Lochner merely acts as a bridge to *separate* the modulated signal of the alleged input and output data converting element 36 from the radiated signal received at the antenna 26. It does not appear that the directional coupler 38 of Lochner is capable of converting the modulated data from one wireless communication data format and protocol to another wireless communication data format and protocol. Indeed, Lochner is silent with regard to any necessary data conversion, let alone suggest converting the data format and

protocol between the transceiver 24 and the wireless transceiver device 14 in the manner asserted by the Examiner.

Accordingly, as anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and at a minimum, Lochner fails to disclose or suggest the foregoing claim elements, it is clear that Lochner does not anticipate claim 1, 8 or 9, or any of the claims dependent thereon.

Furthermore, with respect to new claim 20, this claim incorporates the claim elements recited by original claims 1, 2 and 3. In the pending rejection, the Examiner relies on Son and Mayo for disclosing a single power saving mode, and relies on the power saving termination key of Adachi to modify Lochner, Son and Mayo in an attempt to reach the claimed invention.

As a preliminary matter, it is noted that the Examiner has maintained the rejection to claim 3 set forth in the previous Office Action without responding to Applicants' arguments submitted in the previous response filed July 8, 2004. Specifically, the Office Action does not appear to respond to Applicants' arguments directed to the fact that neither Son, Mayo nor Adachi disclose or suggest *two* separate and distinct power saving modes.

It is respectfully submitted that there is no suggestion or motivation from the prior art for establishing a *second* power saving mode in the wireless communication headset of Son or the transceivers of Mayo, and Adachi has only disclosed a *single* power saving mode (i.e., only the OFF mode). Indeed, Adachi is completely silent with regard to *two* power saving modes. At best understood, the Examiner's asserted motivation on page 7

of the outstanding Office Action *assumes* that the alleged first power saving mode disclosed by Son or Mayo does not function to turn OFF the alleged image display so as to arrive at the motivation to add “a second power saving mode for saving more power than in the first power saving mode,” as recited by claim 3.

It is respectfully submitted that the Examiner's alleged motivation for making the combination is not derived from the prior art, but rather, perhaps, inadvertently, from the Applicants' disclosure. As such, it is submitted that the pending rejection selects elements from various references and combines them without the requisite suggestion *from the prior art* that such a combination is desirable. In other words, the proposed combination is based solely on improper hindsight reasoning, utilizing Applicant's specification as a guide to pick and choose the selected elements from different prior art references so as to reach the claimed invention. At best, the rejection shows only that the *individual* elements (e.g., the disabling/shutting off function of Son, or the power reduction technique of Mayo) of the claimed invention are known without providing a *prima facie* showing of obviousness that the *combination* of elements is known or suggested.

For example, the Examiner alleges that “one of ordinary skill in the art would have been motivated to turn off the wireless personal computer of Lochner so as to save power when no data input is communicated from the input/output unit (see, page 7 of Office Action).” However, there is no evidence from the cited prior art for supporting the Examiner's alleged motivation. Indeed, such an assertion *improperly assumes* that the disabling/shutting off function disclosed in Son or the power reduction method disclosed in Mayo does not save adequate amount of power such that a second power saving mode is needed. Then, when deciding how to supplement Son or Mayo with a second saving power

mode to modify Lochner, the Examiner alleges that one would simply use a power termination saving key or an OFF mode as taught by Adachi thereby further assuming that the alleged first power saving mode disclosed in Son and Mayo does not contain an OFF function. It is respectfully submitted that the pending rejection has improperly developed a hypothetical scenario and relied on assumptions to devise how one would include *two* power saving modes, without any indication from the prior art that there is a need for a second power saving mode in addition to the alleged first power saving mode. It is essential to note that Son discloses an OFF method for turning off the LCD (see, 138 of Fig. 2), and Mayo discloses a power manager for managing the power of the microprocessor system 230.

Nonetheless, even assuming *arguendo* that the Examiner's interpretation that such a need for two power saving modes is present, there is no suggestion from the prior art that one of ordinary skill in the art would develop a second power saving mode in the manner recited in claims 3 and 22. Importantly, claims 3 and 22 do not merely recite a second power saving mode in addition to the first power saving mode. Rather, claims 3 and 22 also recite using a second power saving mode when the image display device *is in the first power saving mode* and *the data input and output port* (i.e., in addition to the image display) is not used for a specific time. Indeed, Adachi merely discloses that the termination key 44 functions as a power ON/OFF key when it is pushed for a long period of time (see, col. 4, lines 35-37). In other words, the ON/OFF condition of the telephone 10 depends on user's manual selection (i.e., by pushing the button), which is independent of the condition of any data input and output port of the telephone 10. As such, the termination key 44 of Lochner does not depend on any data input and output port of the telephone 10. If the Examiner continues to maintain his argument, it is respectfully requested that the Examiner

identify which element of Adachi is being read upon as the alleged data input and output port, and how the termination key 44 (alleged second power saving mode) is activated when the alleged data input and output port is not used for a specific time.

At best, the Examiner has arguably shown that the power of the wireless personal computer of Lochner may be reduced by using the disabling/shutting off function of Son, the power reduction technique of Mayo or the power saving termination key of Adachi. However, the cited prior art is silent with regard to *two separate and distinct* power saving modes (one for monitoring the power of the image display device and the other for monitoring the power of the data input and output port), let alone activate the alleged second power saving mode *when* the image display device is *in* the alleged first power saving mode, and when the data input and output is *not* used for a specific time.

For all of the foregoing reasons, it is respectfully submitted that new claim 22 is patentable over the cited prior art.

With respect to new claim 26, as this claim recites the allowable subject matter of claim 5, it is respectfully submitted that new claim 26 is also patentable over the cited prior art.

**III. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as

claims 1, 8-9, 20 and 26 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

**IV. Conclusion**

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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